SENT BY: HP LABS RESEARCH LIBRARY;

850 852 8187;

MAY-27-08 7:22PM;

PAGE 1/2

HEWLETT-PACKARD COMPANY Intellegual Property Administration P.C. Box 272400 Fort Culling, Colorado 80527-2400

RECEIVED CENTRAL FAXILENTER

JUN 0 2**12008** 

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s):

Sujata Bancrice et al.

Confirmation No.: 4733

Serial No.:

10/797,200

Examiner: Hua Fan

Filed:

March 11, 2004

Group Art Unit: 4134

Atty Docket No.: 200309497-1

Title:

RECONFIGURING A MILTICAST TREE

MAIL STOP AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## <u>DECLARATION FROM JEFF ARCHIE REGARDING EXTERNAL PUBLICATION</u> DATE OF HEWLETT-PACKARD (HI') TECHINCAL REPORT, HPI-2002-314R1

- I, Jeff Archie, hereby declare as follows:
  - 1. I am currently the HP Labs Research Library Manager.
  - 2. My responsibilities include publishing technical reports to the external HP Labs web site, www.hpl.hp.com.
  - The procedure for handling publication of technical reports on the external HP Labs web site includes generating a catalog entry in the library catalog.
  - Each catalog entry includes fields, among others, for "Date Cataloged" and "Security Level".
  - 5. The "Date Cataloged" field indicates the external publication date of an HP technical report, and the "Security Level" field indicates whether the HP technical report is approved for internal or external publication.
  - G. The catalog entry for HP Technical Report HPL-2002-314R1 is attached and

BENT BY: HP LABS RESEARCH LIBRARY;

650 852 8187;

MAY-27-08 7:22PM;

PAGE 2/2

PATENT

Atty Docket No.: 200309497-1 App. Scr. No.: 10/797,200

RECEIVED CENTRAL FAX CENT

labeled as Exhibit 1.

JUN 0 2 2008

- 7. Page 1 of Exhibit 1 indicates a Camlog Date of March 21, 2003, which is indicative of the external publication date of HPL-2002-314R1 on the HP Labs web site.
- Page 2 of Exhibit 1 indicates a Security Level of "External" for HPL-2002-314R1.

Juli Archie

HP Labs Research Library Manager

Hewlett-Packard Labs

EXHIBIT I

(1043)BASIC

Receiver Initiated Just-In-Time Adaptation for Rich Media Distribution / Xu, Zhichen: Tang, Chunqiang: Wang, Zhiheng: Banerjee, Sujata: Lee,

Sung-Ju

HPL-2002-314(R.1) copy:1 CONTROL

id:107376-1001

CENTRAL FAX CENTER JUN 0 2 2008

RECEIVED

Title Info

title control #:

record format:

created by: date cataloged: last modified by:

a107376

TECHPUBS

RINALDTP .

3/21/2003 ADMIN

date modified:

no. of volumes:

date created:

2/26/2003

8/20/2007

BIBLIOGRAPHIC INFO

Report Title

Report Author(s) : AUTH -

: DESC Report Keyword(s)

Number of Pages

Abstract

: PAGE

.: ABS

Receiver Initiated Just-In-Timo Adaptation for Rich Media

Distribution

Xu, Zhichen: Tang, Chungiang: Wang, Zhiheng: Banerjee, Sujata: Lee, Sung-Ju streaming media; overlay

network; multicast

PAGE 6/29 \* RCVD AT 6/2/2008 12:16:24 PM [Eastern Daylight Time] \* SVR:USPTO-EFXRF-6/32 \* DNIS:2738300 \* CSID:7038655150 \* DURATION (mm-ss):03-46

Application-level multicast networks overlaid over unleast IP networks are increasingly gaining in importance. While there have been several proposals for overlay multicast networks, very few of them focus on the stringent requirements of real-time applications such as streaming media. We propose an officient overlay application

layer multicast infrastructure

for multimedia real-time applications based on a combination of landmark clustering and RTT measurements. Our goal is to

balance the network-oriented goals of building an efficient multicast tree with the application-oriented goals of providing good QoS with minimal disruptions. Using accurate global soft state information tables, our approach promptly

EXHIBIT I (2 of 3)

constructs and reconfigures high quality trees. A distinguished feature of our approach is that the tree reconfiguration is initiated just-in-time by the application client at the receiver when the media quality falls below a specific threshold. The goal is to achieve dynamic tree reconfiguration with very low switching delay such that end users do not perceive any application performance degradation.

Date Issued	ed :RPDT 20030310			
Document Type	: DT	no PS; PDF		
Security Level	:RCLS	External		
Department	: Dept	LSND, Linux Systems & Networks		
		Department		
Laboratory	:LAB	ISSL, Internet Systems and		
-		Storage Laboratory		
Center	:CEN	ICPRC, Internet and Computing		
		Platforms Research Contor		
Entity Code	:EN	1900		
View Full Text	:URL	RL  uhttp://library.hp.		
		com/techpubs/2002/HPL-2002-314R		

.html

VOL/COPY

Call Number Info

call number:

HPL-2002-314 (R.1)

class scheme:

ALPHANUM

library:

TECHPUBS

Item Info

copy number:

107376-1001 item ID:

TECHRPT type:

home location:

item catl:

PALOALTO EXTERNAL

permanent:

. ¥

current location:

total charges:

N

number of pieces: 1

PALOALTO

circulate:

Extended Info

EXTEND

EXHIBIT 1 (3 of 3)

Volume and Copy Info				
(Displaying 1 of 1 v	rolumes)			•
CIRC INFO				
total bills: none Extended Info:none controls: none	checkouts:	none	holds:	none
CHECKOUTS				
CHECKOUTS: NONE HOLDS				
HAT BE STATE				